Spotlight on...

Felix Wieland

Editor of *FEBS Letters* since 1994

Felix Wieland credits his scientific success to his natural curiosity and to fruitful collaborations with friends in his research field. Since 1988, Felix has been a full professor at the University of Heidelberg. With a gleam in his eye and an obvious enthusiasm for his job, Dr. Wieland sat down with us and shared his perspectives on his research and his plans for the future. In addition to his managing editor duties, Felix edits manuscripts in the field of molecular cell biology, in particular vesicular biology and protein transport.

Two members of your family have won Nobel Prizes.
Yes, this is true. My grandfather Heinrich Wieland won a Nobel Prize in 1927 for discovering the structure of bile acid which, ironically, was eventually corrected after the crystal structure was determined. Feodor Lynen, my uncle, won a Nobel Prize in 1964 for his discovery of Acetyl-CoA and its metabolic pathways that, by the way, help to form cholesterol, the precursor of Heinrich Wieland's bile acid.

There were more scientists in your family.
My father was a scientist too, and so was my father's older brother, Theodor Wieland. He established the chemistry of peptide synthesis that led to gaseous reaction by-products, eliminating the need to purify the products.

Has this scientific heritage in fluenced your career?
Well, in a general way it probably did, making me familiar with how a scientist thinks and behaves. So the influence is not so much in my chosen field but in the approach, to give a phenomenon no respect but seek to solve it.

What is your lab working on?
We are working on the mechanisms that allow a vesicle to form from a membrane. Our chosen model is the COPI vesicle, produced in the Golgi and serving in the early protein secretory pathway. We have characterized most of the machinery that is needed to form this vesicle and have proven this mechanism by our ability to create vesicles in a controlled, reconstituted system. This has also led us into the field of lipidology. More recently we have started research in molecular immunology, where we are characterizing the components and mechanisms underlying the "cross-priming" of exogenous antigens as presented by the major histocompatibility complex, MHCI. Canonically, in the endoplasmic reticulum (ER), the MHCI is loaded with antigens that have entered the ER by the so-called TAP transporter. Once loaded, the MHCI starts its travel via the secretory pathway to the cell surface, and here you see the convergence of my two topics: both involve the secretory pathway.

Do you have a favourite paper?
If the best paper is one that has had the most impact, I choose our 1999 Cell paper [1] where we reconstituted vesicle budding with the minimum machinery. But actually, the paper I enjoyed writing the most was an early one, my 1983 PNAS paper [2]. We described for the first time that bacteria were able to synthesize glycoproteins, and in the process we also discovered a novel type of N-glycosyl linkage. The work was done in a short period of time, and the results were novel, unequivocal and surprising.

Is this how you characterize good science?
Partly but good science can also be the intelligent interpretation of known data to create a novel insight. Well, this is my definition. The statutes of the Nobel prize say that good science has to have a positive impact on mankind, not that it need be clever or original, but personally I appreciate it more if something is really novel, convincing and elegant in a simple way.

What are you reading right now?
I'm currently on volume three of Churchill's memoirs. History is an important mirror to judge how politics function in the present and to show how mistakes are repeated.

Could you comment on the current debate surrounding Open Access publishing?
The question of open access deals with who pays, the author or reader. Personally, I do not understand the advantage of having the author pay rather than the consumer. I fear that scientific quality may be compromised because under this system the more papers a journal prints, the more money it receives. Much good can be accomplished with the current system. For example, *FEBS Letters* is a society journal and its entire profit flows back into the scientific community. In my opinion, this current debate is a reaction to Elsevier's domination in the scientific publishing market. I don't agree with this reaction, because other strong scientific publishers currently thrive, such as Nature Publishing Group, Blackwell Publishing and Wiley Publishers, to name a few.

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References

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[2] Wieland, F. et al. (1983) PNAS 80 (18), 5470–5474.

Interview by Tine Walma

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